



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, DC 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/918,194	08/21/97	NATHASINGH D	30-435814710

MM71/1208

ERNEST D BUFF
ALLIED SIGNAL INC
PO BOX 2245
101 COLUMBIA ROAD
MORRISTOWN NJ 07962

EXAMINER
NGUYEN, T

ART UNIT
2832

PAPER NUMBER

DATE MAILED: 12/08/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/918,194

Applicant(s)
Nathasingh et al.

Examiner
Tuyen T. Nguyen

Group Art Unit
2832



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-27 is/are pending in the application.

Of the above, claim(s) 10-13 and 27 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-9 and 14-26 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2832

DETAILED ACTION

Election/Restriction

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9, 14-26, drawn to a product of a transformer core, classified in class 336, subclass 234.
 - II. Claims 10-13, 27, drawn to a process for making a transformer core, classified in class 29, subclass 609.
2. The inventions are distinct, each from the other because of the following reasons: ~~Inventions~~ of (I) and (II) are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be made by another and materially different process (MPEP 806.05(f)). In the instant case, the product as claimed, can be made by another and materially different process such as arranging each packet of cut amorphous metal strips in a pattern thereby stacking the groups of strips directly on top of one another.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Mr. Edward D. Buff (the previous Examiner, Mr. Dexter Tugbang), the attorney on record, on October 5, 1998 a provisional election was made with traverse to prosecute the invention of group I, claims 1-9 and 14-26. Affirmation of this election

Art Unit: 2832

must be made by applicant in replying to this Office action. Claims 10-13 and 27 of group II withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 5-8, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5, the phrase “said C, I, or straight stack” lacks antecedent basis in the claim. Claim 6 inherits the defect in the parent claim.

Regarding claim 7, the phrase “the edges” lacks antecedent basis in the claim. Claim 8 inherits the defect in the parent claim.

Art Unit: 2832

Regarding claim 19, the phrase "said bonding material" lacks antecedent basis in the claim.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 9, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Sclater (US 2,548,624).

Regarding claim 1, Sclater discloses a transformer core comprising a plurality of segments (figure 5) of amorphous metal strips, each segment comprising at least one packet of said strips.

Regarding claim 2, Sclater discloses a core segment comprising a plurality of packets of cut amorphous metal strips.

Regarding claim 3, Sclater discloses packets comprising a plurality of groups of cut amorphous metal strips arranged in a step-lap joint. (See figures 2, 5)

Regarding claim 9, Sclater discloses each of the packets has a plurality of joint ends supported separately for assembly into a finished transformer core.

Regarding claim 14, Sclater discloses a transformer core comprising two C segments.

Art Unit: 2832

Regarding claim 15, Sclater discloses a transformer core comprising two C segments and an even number of straight segments.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 4, 5, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sclater (US 2,548,624).

Regarding claims 4 and 5, Sclater discloses the instant claimed invention except for the core segment having an “I” segment construction. It would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the core segment of Sclater into an “I” segment construction since more than a mere change of form is necessary for patentability. In re Span-Deck Inc. v. Fab-Con, Inc. (CA 8, 1982) 215 USPQ 835.

Regarding claims 16-18, Sclater discloses the instant claimed invention except for number of C, I, and straight segments. It would have been an obvious matter of design choice to modify the transformer core of Sclater into form of shell-type or three leg core for three phase transformer by forming different C, I, and straight segments together.

Art Unit: 2832

12. Claims 6-8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sclater in view of Lee et al. (US 5,134,771).

Sclater discloses the instant claimed invention except for the segment having annealed and edge coating with bonding material. Lee et al teaches utilizing annealing and edge coating with bonding material to the segment for the purpose of strengthening the core segment. It would have been obvious to one having ordinary skill in the art at the time the invention was made to anneal and edge coat with bonding material to the core segment of Sclater, as taught by Lee et al., for the purpose of strengthening the core segment.

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sclater in view of Granfield (US 2,465,798).

Sclater discloses the instant claimed invention except for the strips have varying widths arranged to provide a cruciform shape cross section. Grandfield teaches utilizing strips have varying widths arranged to provide a cruciform shape cross section. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the strips have varying widths arranged to provide a cruciform shape cross section, as taught by Grandfield, in Sclater's unit for the purpose of providing the advantage of assembling the round coil and maximizing the coil space fill factor.

14. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sclater.

Sclater discloses the instant claimed invention except for the core is not housed in an oil filled or dry-type transformer, a distribution transformer, a power transformer, and used in a voltage

Art Unit: 2832

conversion apparatus. It would have been an obvious matter of design choice to house the core of Sclater in an oil filled or dry-type transformer, a distribution transformer, a power transformer, and used in a voltage conversion apparatus, since applicant has not disclosed that housing the core in an oil filled or dry-type transformer, a distribution transformer, a power transformer, and used in a voltage conversion apparatus solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the core of Sclater being use as an electric induction apparatus.

15. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sclater in view of Ames et al. (US 4,450,206).

Sclater discloses the instant claimed invention except for the strips having a composition defined by the formula $M_{70-80}Y_{5-20}Z_{0-20}$. Ames et al. teaches utilizing the amorphous metal strip having a composition defined by the formula MYZ where the atom percent is in the range of the claimed invention (see TABLE I). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the amorphous metal strip of Ames into Sclater's unit so the core segments can be suitable for use in voltage conversion and energy storage applications.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tuyen T. Nguyen whose telephone number is (703) 308-0821.

Art Unit: 2832

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Gellner, can be reached on (703) 308-1721. The fax phone number for this Group is (703) 305-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1782

TTN

Tuyen T. Nguyen

Patent Examiner - Art Unit 2832

Dec. 4, 1998


RENEE S. LUEBKE
PRIMARY EXAMINER
GROUP 3100